ITGS

Information Technology in a Global Society

**STUDENT GUIDE**

About ITGS

The Diploma Programme information technology in a global society (ITGS) course is the study and evaluation of the impact of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

Although ITGS shares methods of critical investigation and analysis with other social sciences, it also considers ethical questions found in the study of philosophy. Students come into contact with IT on a daily basis because it is so pervasive in the world in which we live. This widespread use of IT inevitably raises important questions about social and ethical issues that shape our society today. ITGS offers an opportunity for a systematic study of these issues, whose range is such that they fall outside the scope of any other single discipline.

The nature of the subject is defined by the use of fundamental ITGS terms. For the purpose of the ITGS syllabus the following definitions apply.

**Information technology** is the acquisition, processing, storage, manipulation and dissemination of digital information by computing or telecommunications or a combination of both.

**Social impact** includes the economic, political, cultural, legal, environmental, ergonomic, health and psychological effects of IT on human life.

**Ethical considerations** refer to the responsibility and accountability of those involved in the design, implementation and use of IT.

**An information system** is a collection of people, information technologies, data, methods and policies organized to accomplish specific functions and solve specific problems.

ITGS Syllabus Overview

The ITGS course aims to educate students about the global impact of IT systems on today’s society.

During this course, you will focus on three main inter-linked areas:

* **Social and Ethical Issues** – the positive and negative aspects of an IT system and it’s effects on society
* **IT System in a Social Context** – the technology – what it is and how it works
* **Specific Areas of Impact** – the areas of society where IT has an impact. These are: Business & Employment; Education; Health; Arts, Entertainment & Leisure, Science and the Environment, Politics and Government

The diagram below illustrates the three inter-linked sections of the course and is a summary of the course as a whole.

REMEMBER THE TRIANGLE!

**2. IT Systems in a social context**

**1. Social & Ethical Issues**

**3. Areas of Impact**

6 in total – HL study all 6, SL will study 4.

Both SL & HL will study **Business & Employment**

By the end of the course, you should clearly understand the relationship between all three areas above.

The purpose is to enable you to analyze and evaluate the social impact of information technology on individuals and society and consider the ethical issues raised by this impact.

Social impact and ethical considerations will be analyzed from both a local and global perspective.

Expectations of an ITGS IB student

An ITGS student is expected to:

* Be self motivated
* Be honest
* Have integrity
* Be a team player
* Complete all work to the best of their ability at all times
* Complete all homework and coursework on time
* Be able to communicate verbally and in written form
* Have an interest in technology (hardware / software, old /current and new)
* Enjoy learning about how technology works
* Enjoy discussing the impact of technology on our day to day life
* Keep up to date with technological advances
* Read about technology related news from around the world through:

Magazines

Stuff

BBC Focus

PC World

News websites

* <http://news.bbc.co.uk> the technology section
* <http://www.nytimes.com> the technology section
* <http://www.skynews.com> – the technology section
* <http://gulfnews.com> – the technology section
* <http://news.bbc.co.uk/2/hi/programmes/click_online/default.stm>
* <http://www.wired.com>
* <http://www.howstuffworks.com>
* <http://www.youtube.com>

Newspapers

Daily Mail

7Days

Gulf News

Khaleej Times

* Use technology to communicate their ideas and share information
* Understand when to use technology and when not to
* Ask if they don’t understand or find out
* Be willing to share their knowledge

ITGS External and Internal Assessment

**HL ITGS Assessment**

**External Assessment** (80%) – 3 Written Examination Papers – 4 hours total

* Paper 1: 1 hour, 20% Four compulsory short-answer questions that assess n an integrated way sections 1 & 2 of the course
* Paper 2: 2 hours, 35% Three structured questions from a choice of four on areas of impact
* Paper 3: 1 hour, 25% Three questions based on a case study

**Internal Assessment** (20%) – Portfolio & Extension

* Students will complete 3 pieces of written work on social and ethical issues based on three different areas of impact (800-1000 words total) using a newspaper article no older than 6 months as their basis for discussion
* Students will complete an extension (interview stakeholder(s)) to one of the portfolio pieces (800-1000 words total)

**SL ITGS Assessment**

**External Assessment** (70%) – 2 Written Examination Papers – 3 hours total

* Paper 1: 1 hour, 25% Four compulsory short-answer questions that assess n an integrated way sections 1 & 2 of the course
* Paper 2: 2 hours, 45% Six structured questions that discuss in an integrated way sections 1,2 & 3 of the course. The paper is in 2 parts – A (one compulsory question – Business and Employment) and B (five questions, one on each of the other areas of impact. Students are required to answer two out of five). Students will answer 3 questions in total

**Internal Assessment** (30%) – PROJECT

* Students will produce:
  + a ‘real’ **product** developed through the integration of IT skills
  + a written **report** (2000-2500 words)
  + a **log book**

THE SYLLABUS TRIANGLE

**Section 1. Social & Ethical Issues**

1. Reliability

2. Integrity

3. Security

4. Privacy & Anonymity

5. Authenticity

6. Intellectual Property

7. Equality of access

8. Control

9. Globalisation & Cultural Diversity

10. Policies and standards

11. People & Machines

**Section 2. IT Systems in a social context**

1. Basics: Hardware & Software

1.1 System Fundamentals

1.2 Networks

2. Applications

2.1 Software Fundamentals

2.2 Databases & Spreadsheets

2.3 Word Processing & Desktop Publishing

2.4 Images, sound & presentations

2.5 Modelling & Simulations

2.6 Tutorials, training & wizards (assistants)

3. Communication Systems

3.1 The Internet

3.2 Personal & Public Communications

4. Integrated Systems

4.1 Robotics

4.2 Artificial Intelligence and Expert Systems

**Section 3. Areas of Impact**

6 in total – HL study all 6, SL will study 4.

Both SL & HL will study **Business & Employment**

1. Business & Employment

2. Education

3. Health

4. Arts, Entertainment & Leisure

5. Science and the Environment

6. Politics and Government

ITGS Grade Descriptors

**Grade 7 Excellent performance**

Demonstrates: conceptual awareness, insight, and knowledge and understanding which are evident in the skills of critical thinking; a high level of ability to provide answers which are fully developed, structured in a logical and coherent manner and illustrated with appropriate examples; a precise use of terminology which is specific to the subject; familiarity with the literature of the subject; the ability to analyse and evaluate evidence and to synthesize knowledge and concepts; awareness of alternative points of view and subjective and ideological biases, and the ability to come to reasonable, albeit tentative, conclusions; consistent evidence of critical reflective thinking; a high level of proficiency in analysing and evaluating data or problem solving.

**Grade 6 Very good performance**

Demonstrates: detailed knowledge and understanding; answers which are coherent, logically structured and well developed; consistent use of appropriate terminology; an ability to analyse, evaluate and synthesize knowledge and concepts; knowledge of relevant research, theories and issues, and awareness of different perspectives and contexts from which these have been developed; consistent evidence of critical thinking; an ability to analyse and evaluate data or to solve problems competently.

**Grade 5 Good performance**

Demonstrates: a sound knowledge and understanding of the subject using subject-specific terminology; answers which are logically structured and coherent but not fully developed; an ability to provide competent answers with some attempt to integrate knowledge and concepts; a tendency to be more descriptive than evaluative although some ability is demonstrated to present and develop contrasting points of view; some evidence of critical thinking; an ability to analyse and evaluate data or to solve problems.

**Grade 4 Satisfactory performance**

Demonstrates: a secure knowledge and understanding of the subject going beyond the mere citing of isolated, fragmentary, irrelevant or ‘common sense’ points; some ability to structure answers but with insufficient clarity and possibly some repetition; an ability to express knowledge and understanding in terminology specific to the subject; some understanding of the way facts or ideas may be related and embodied in principles and concepts; some ability to develop ideas and substantiate assertions; use of knowledge and understanding which is more descriptive than analytical; some ability to compensate for gaps in knowledge and understanding through rudimentary application or evaluation of that knowledge; an ability to interpret data or to solve problems and some ability to engage in analysis and evaluation.

**Grade 3 Mediocre performance**

Demonstrates: some knowledge and understanding of the subject; a basic sense of structure that is not sustained throughout the answers; a basic use of terminology appropriate to the subject; some ability to establish links between facts or ideas; some ability to comprehend data or to solve problems.

**Grade 2 Poor performance**

Demonstrates: a limited knowledge and understanding of the subject; some sense of structure in the answers; a limited use of terminology appropriate to the subject; a limited ability to establish links between facts or ideas; a basic ability to comprehend data or to solve problems.

**Grade 1 Very poor performance**

Demonstrates: very limited knowledge and understanding of the subject; almost no organizational structure in the answers; inappropriate or inadequate use of terminology; a limited ability to comprehend data or to solve problems.

NOTES